Monitoring Part 4: Continuous Emissions Monitoring, Part 60 vs Part 75

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Disclaimer

This presentation is not designed to replace the Code of Federal Regulations. In the event of conflicts between these slides and 40 CFR 75 or 40 CFR 60, please consult the Federal Register.

Areas of Potential Quality Assurance Differences

- 40 CFR 60, appendices B and F
- 40 CFR 75, appendices A and B
- Calibration Drift vs Calibration Error Check
- CGA vs Linearity Check
- RATA Requirements
- Reference method differences
- Moisture basis

Span and Range Part 60 vs 75

- Usually specified by subpart in part 60
- Part 75, appendix A, section 2, span calculations
- Objective - set range such that majority of readings are 20% to 80% of Range
- Span is subset of range (range is always ≥ span)
- Span is equal to 1.0 to 1.25 times Maximum Potential Concentration (MPC) or Maximum Potential Flow (MPF)
- Periodic Span adjustments - Part 75, appendix A, section 2.1.2.5

Part 60 vs Part 75
Gas Monitor Relative Accuracy (RA)

40 CFR 60	40 CFR 75
◆ PS 2 RA ≤20% or 10% to 20% of the standard	◆ RA ≤10%, ±15 ppm or ± 1.0% O_2 or CO_2
◆ PS 3 RA ≤20% or 1.0% O_2 or CO_2	◆ RA ≤10%, or ± 1.0% O_2 or CO_2
◆ Repeat every four quarters (appendix F)	◆ Repeat 2 QA operating quarters + grace period

Part 75 RATA Incentive

- RA ≤7.5% pollutant monitors
- Low emitter standard ± 0.020 lb/mmBtu
- Repeat every four quarters plus grace period

Load Range for Gas Monitor Relative Accuracy Test Audit (RATA)

40 CFR 60

- Appendix B, Performance Specification 2, section 5.3
- Unit operating at more than 50% or normal load

40 CFR 75

- Appendix B, section 2.3.1.3 (a)
- Unit normal load specified by appendix A, section 6.5.2.1

Calibration Drift vs Calibration Error

40 CFR 60

- Performance Specification (PS) 2.5% of Span for NO_x and SO_2 or 0.5% O_2 or CO_2
- Out-of-Control Period - first failed 4x PS or fifth consecutive failed 2x PS (appendix F)

40 CFR 75

- Performance Specification (PS) 2.5% of Span for NO_x and SO_2 (≤5 ppm for spans <200 ppm), or 0.5% O_2 or CO_2
- Out-of-Control Period - first failed 2x PS

CGA vs Linearity Check

40 CFR 60

- 2 gases: 20-30% and 50-60% of monitor span
- Criteria ≤ ±15% or ±5 ppm
- 3 quarters per year - any quarter with RATA is exempt (appendix F)

40 CFR 75

- 3 gases: 20-30%, 50-60%, and 80-100% of monitor span
- Criteria =±5% or ±5 ppm
- Every QA operating quarter + grace period

Calibration Gases for Reference Methods

40 CFR 60

- Part 60, appendix A, requires tester to use protocol gases or may elect alternative no. 2

40 CFR 75

- Part 75, tester must use gases in section 5, appendix A of part 75 (Protocol Gases)

Reference Method Differences

40 CFR 60	40 CFR 75
◆ Test method specified in subpart	◆ Test methods specified in §75.22. Not all of the sections in the reference methods are adopted in Part 75 (Note appendix A, section 6.5.10 for total NO_x)

Moisture Monitoring

- Part 75 requires moisture to pass moisture RATA
- RATA consists of reference method 4 vs moisture monitor
- Oxygen RATA for wet/dry oxygen monitors does not meet part 75 RATA requirement
- Temperature/psychrometric lookup tables are not required to pass RATA